
MALWARE

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TECHNICAL REPORT

From Modems to Message Boards:
BBS and Its Impact on Online Dating
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Abstract

This paper will explore the technical aspects of BBSes, their history and evolution, and their use as a platform for early online dating. By examining the technical and social aspects of BBSes, we can gain a better understanding of the role they played in shaping the early days of the Internet and online communication.

About the Author

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From Modems to Message Boards: BBS and Its Impact on Online Dating

In the late 1970s and early 1980s, Bulletin Board Systems (BBSes) emerged as a novel form of online communication. These computer systems allowed users to communicate with each other using their computers and a dial-up connections via a modem. Unlike today's social media platforms which are generally corporately owned, BBSes were run by individuals who used their computer hardware, software, and phone lines to run their BBS. Users typically would access the BBS using a terminal program on their personal computers. However, the impact of BBSes extended far beyond their technical innovations. For many users, BBSes represented a radical new way of connecting with like-minded individuals and forming communities around shared interests. From computer programming to science fiction and music, BBSes allowed people to come together and share their passions. In addition to their social significance, BBSes also played a significant role in the early days of online dating. Before the advent of dedicated dating platforms, BBSes provided a unique environment for people to explore romantic relationships. Many BBSes had dedicated forums or message boards for dating and romance, and users would often spend hours chatting with potential partners and arranging real-life meetups. This paper will explore the technical aspects of BBSes, their history and evolution, and their use as a platform for early online dating. By examining the technical and social aspects of BBSes, we can gain a better understanding of the role they played in shaping the early days of the Internet and online communication.

BBS software and hardware are the fundamental components of any Bulletin Board System. The software controls the functionality and provides services to the users. Frisbie et al.(1991) provide an overview of BBS software and hardware requirements, explaining that the software component typically includes features such as file transfer protocols, messaging capabilities, and user management. Examples of popular BBS software include WWIV, Renegade, and Wildcat!. These software packages provide a range of features, such as support

for multiple file transfer protocols, integration with external systems such as Usenet newsgroups, and advanced security features.

The hardware component of a BBS is responsible for providing the necessary computing and networking infrastructure to support the software. Frisbie et al. (1991) describe the hardware requirements for a BBS as typically consisting of a personal computer or server, a modem, and a phone line. The personal computer or server is responsible for running the BBS software, while the modem and phone line are used to provide connectivity to users dialing in to the system.

Setting up a BBS can be complex, requiring technical expertise and careful planning. According to Frisbie et al. (1991), the first step in establishing a BBS is to select an appropriate software package based on the desired features and functionality. Once the software has been chosen, the hardware requirements must be determined, and the necessary components must be acquired and configured.

In addition to selecting the appropriate software and hardware, several other technical considerations must be addressed when setting up a BBS. These include configuring the modem settings to provide the best possible connection speed, setting up user accounts and access privileges, and configuring the system for remote administration and monitoring. Frisbie et al. (1991) provide detailed guidance on each of these topics and other technical considerations essential for establishing a successful BBS.

The user interface of a BBS was, for many years, similar to that of a command line interface, with users accessing the system via terminal emulator software on their local computer. The user interface of a BBS typically consists of a text-based menu system that allows users to navigate through the various features and services provided by the system. BBS systems were moderated and managed by the system operator (Sysop), who was responsible for ensuring the system's smooth operation and enforcing rules and policies. Frisbie et al. (1991) note that Sysops were also responsible for creating and maintaining the content of the BBS, which included everything from messages and forums to files and other resources.

Compared to modern social media platforms such as Facebook and Twitter, BBS systems were much more limited in scope and functionality. BBS systems had a more focused user base, while also lacking the extensive features and global reach of modern social media platforms. However, they provided a more intimate and personalized online experience to users. They provided a level of interactivity and community that was not possible with other forms of online communication such as email and instant messaging. One example of this comes from a BBS called THE THING. Initially centered around New York City-based artists, the early virtual community later expanded to include individuals who could connect to nodes in various European cities. The Thing was distinct

in that it not only facilitated artistic discussions, but also viewed the network as an ever-changing work of art shaped by the collaborative contributions of its active participants (Emerson, 2020). Without the interactivity of the BBS system, this collaboration would not be possible. The BBS represented an important milestone in the evolution of online communication, paving the way for the development of more sophisticated systems and services in the years to come.

The Bulletin Board System (BBS) emerged due to the dial-up modem technology that became popular in the late 1970s and early 1980s. The system was called CBBS, which stood for Computerized Bulletin Board System, and it was designed to work with the early personal computers of the time, such as the Apple II and the TRS-80. The first BBS was established in Chicago in 1978 by Ward Christensen and Randy Suess, who created the system as a way for computer hobbyists to exchange information and programs (Zydyk, 2005).

BBS reached its peak of popularity in the late 1980s and early 1990s. During this time, BBS was used for various activities, such as online gaming, file sharing, and communication with other BBS users. Most BBSes were devoted to a particular subject, although some are more general. BBSes' special interests are "dentistry, law, guns, multi-player games, Druidic practices, and information for people with disabilities" (Zydyk, 2005). Many BBS sites provide chat rooms and downloadable images geared toward mature or adult audiences (Zydyk, 2005). The BBS was often free, although some charged a membership or use fee. However, the decline of BBS began with the introduction of the World Wide Web and MOSAIC, the first graphical user interface for surfing the Web. As the internet became more accessible and user-friendly, BBS was gradually replaced by web-based platforms. The emergence of Internet Service Providers (ISPs) also played a significant role in the decline of BBS. The emergence of ISPs provided faster and more reliable Internet connections, making it easier for users to access the wider range of online content.

The early BBS systems were simple and text-based, providing users with basic features. However, over time, BBS systems evolved to include more advanced features, such as online gaming and multi-node systems that allowed multiple users to connect simultaneously. One significant event in the history of BBS was the introduction of the FidoNet protocol. FidoNet, developed in 1984 by Tom Jennings, allowed BBS systems to exchange messages and files with other BBS systems worldwide, creating a global BBS network. FidoNet helped to popularize BBS systems and was instrumental in the growth of BBS during the 1980s and early 1990s.

After the introduction of FidoNet, other notable advancements in BBS technology included the development of more advanced software packages, such as QuickBBS and RemoteAccess. QuickBBS, released in 1987, was one of the first BBS software packages to support multiple phone lines and was used by many BBS sysops to create large networks of connected BBS systems (Hudson, n.d.). RemoteAccess, released in 1992, was known for its advanced

graphical user interface and ability to support internet-based email and file transfers (LivingInternet, n.d.).

Another significant advancement in BBS technology was the introduction of the XMODEM file transfer protocol, which allowed users to transfer larger files more quickly and reliably than earlier protocols like Kermit and YMODEM (Python Hosted, n.d.). XMODEM was developed by Ward Christensen and became widely adopted by BBS systems in the mid-1980s (Forsberg, n.d.). In addition to the aforementioned technical advancements, the BBS community also saw the rise of user groups and online communities dedicated to various topics and interests. These groups often organized meetups and events for members to socialize and share knowledge. For example, in the early 1990s, the FidoNet community hosted an annual conference called FidoCon, which brought together BBS sysops and users from around the world (Hönigsberger, 2011).

Bulletin board systems built specifically for dating were created soon after BBSes became popular. The most notable of these BBSes is what came to be known as Matchmaker.com. In 1986, the original site took the form of a bulletin board system that was geographically restricted, enabling users to connect with others who shared similar interests. Initially, the BBS system only served local computer-literate users within a specific telephone area code. However, the system evolved over time and incorporated email exchanges and profiles using sendmail, and eventually became part of the Matchmaker network backbone, which was featured in an electronic mail directory as one of the largest email networks prior to the internet's widespread adoption.

Gender norms played a significant role in the dynamics of these dating-centered BBSes. In the early days of BBSes, the online world was primarily dominated by young, white men, and the women who participated were often subjected to hostility. Women who did not conform to the expected norms were frequently flamed or even removed from BBSes. Women were also sexually pursued by men, who also often offered assistance and guidance to those who they believed were lost or confused within the system. However, many men became upset when women failed to reciprocate in romantic or sexual ways online, creating a cycle where women were spending a lot of time rejecting offers of help, which were often rooted in the belief that female users couldn't possibly know what they were doing (Le Doueff, 1990, p. 199). Michele Le Doueff's (1990) argument that 'the less need we have for this kind of support...the more intensively we find this tutelage being pressed on us' highlights the pressure women often felt in BBSes to accept support and guidance they didn't necessarily need or want. As a result, many women spent their virtual time declining offers of help or rejecting sexual advances (DeVoss, 2007).

In the early 1990s, as more users got online, smaller BBSes started to disappear as these users moved to platforms like Internet Relay Chat. BBSes that survived were typically those that offered more than one-line access. With multiple lines, synchronous chatting and teleconferencing became the norm, replacing the earlier norm of asynchronous message boarding. Before multi-line systems, male users had little incentive to perform virtual drag on most BBSes. However, as BBSes grew larger and supported more phone lines and synchronous chat spaces, many converted to use-for-pay systems, unlike the free-to-use on-line local BBSes of the past. The cost of installing more modems, expanding hard drives, and purchasing commercially produced BBS software translated to user fees, with users purchasing online time in the form of “credits.” These credits could be transferred to other users. Due to their rarity and high value in this realm, male users often created pseudonymous accounts and posed as female users to manipulate other male users into transferring credits to them. They would then transfer those credits from their fake female accounts into their main, male-identified accounts. A study conducted by Dànienne Nicole DeVoss in 1993 on a local BBS revealed that of the 800 users, 96% were male. This scarcity of women on BBSes meant that female users were in high demand, both sexually and socially. The practice of pretending to be a woman in order to extract credits from other male users is a clear example of how the value of women on BBSes led to their exploitation. The rise of use-for-pay systems in the 1990s further exacerbated this problem, as male users had more of an incentive to pose as women and extract credits from other users (DeVoss, 2007).

DeVoss relays an interesting anecdote of how men would try to prove that they were women in these BBS spaces for the sake of credits. Men posing as women in these spaces were often engaging in sexually explicit chatting and email with other male users. Despite the prevalence of this phenomenon, there is surprisingly little scholarly evidence or discussion of men masquerading as women and creating elaborate relationships within this space, although Turkle (1995) provided some examples and Ross, Månsson, Daneback, & Tikkanen (2005) reported on sexual activity. The most remarkable instance of a BBS user being publicly exposed was actually a female user, who went by the handle Princess. Within just four months of her initial login, several male users had broken off relationships with their real-life partners, fallen in love with Princess’ online persona, and fought to enter her private chat room. As time passed, they desperately wanted to meet her in person, but she wrapped herself in an elaborate story to avoid doing so. However, one of the more aggressive male users eventually found out her real address and went there with another online admirer, only to find that she was the opposite of her online identity. They reported her as “the stereotypical antithesis of the online persona she had created online,” (DeVoss, 2007, p. 22).

The performance of conventional gender roles is still prevalent in online dating today, as reflected in the preferences and expectations of users on various online platforms. According to a study by Pew Research Center, men are more likely to initiate contact with women online and are more likely to send

messages to users they find attractive (Duggan, 2013). This pattern of behavior suggests that men are still expected to take the lead in pursuing romantic relationships, while women are often viewed as passive recipients of male attention.

Moreover, conventional gender stereotypes also play a role in the types of messages that men and women receive on dating apps. A study by OkCupid found that men tend to send messages that focus on physical appearance and sexual attraction, while women receive more messages that are focused on their personality and interests (OkCupid, 2009). This finding suggests that men are often expected to be more aggressive and focused on physical attraction, while women are expected to be more reserved and valued for their personality and interests. Another study by sociologists Elizabeth Bruch and Mark Newman analyzed millions of messages exchanged on a popular dating app and found that there is a hierarchy of desirability based on race and gender. The study found that Asian men and black women were consistently rated as the least desirable, while white men and Asian women were rated as the most desirable (Bruch & Newman, 2018). This hierarchy suggests that racial and gender biases continue to shape the preferences and expectations of users on dating apps. These studies show that gender roles remain prevalent in online dating today, as reflected in the expectations, preferences, and biases of users on various dating platforms. These gender roles can contribute to inequalities and biases in the online dating experience and may perpetuate harmful stereotypes and biases in society.

The Bulletin Board System was revolutionary, providing a novel way for individuals to connect and share information over dial-up connections. BBSes played a significant role in the early days of online dating, providing a unique environment for people to explore romantic relationships. The technical aspects of BBSes, including software, hardware, and user interface, were crucial to their success, and setting up a BBS required technical expertise and careful planning. Despite their limited functionality compared to modern social media platforms, BBS systems paved the way for the development of more sophisticated online communication systems and services. The decline of BBSes began with the introduction of the World Wide Web and graphical user interfaces, but their impact on the early days of the Internet and online communication cannot be understated. BBSes remain an important part of Internet history and a testament to the human desire for connection and community, regardless of the technological limitations. As mentioned earlier, BBSes were not only used for exchanging information and sharing hobbies but also served as a platform for early online dating. The dating forums and message boards on BBSes were a unique environment for people to explore romantic relationships, connect with potential partners and arrange real-life meetups. However, the culture of BBSes was not free from oppressive gender roles and harmful social norms. The oppressive gender roles and social norms that existed in the BBS culture are not unique to this platform. They have persisted in online dating to this day, and it is essential to recognize and address them if we want to create a more equitable

and inclusive dating environment. The evolution of online dating has brought new challenges and opportunities, and it is up to us to use technology to create a more just and equitable society.

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